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IDAHO PRIMITIVE AREA REPORT

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IDAHO PRIMITIVE AREA REPORT

For the past several years sportsmen and other recreationists who visit the sparsely settled region along the Middle Fork of Salmon River, the country lying west across Monumental Creek and north through Chamberlain Basin and the elk ranges to the main Salmon River, have voiced the belief that this vast undeveloped region should be set apart as a hunting ground and recreational area. It is the expressed opinion of these people that the predominant value of the area is for recreational purposes and that it should be maintained in its present undeveloped condition. These sentiments are not confined to citizens of the State or to local communities but include representative sportsmen and recreationists from widely scattered parts of the whole United States.

During the past year or two interest in this matter has become so intense that steps have been taken by the Forest Service to study the area with a view to weighing its value primarily for recreational use as against such existing and potential values as it may have from the commercial point of view. As a result of this study it seems clearly evident that the recreational value of the area is at present, and will continue to be, dominant. The facts upon which this conclusion is based are set forth in the following report. In presenting these facts an attempt has been made to discuss each in sufficient detail to give one unacquainted with the region a reasonably clear picture of the present or potential values from the standpoint of both commercial and recreational use. A detailed description of the boundaries of the area and other data of a statistical character are attached as an appendix to the report.

1. The Proposal

To maintain in primitive condition approximately one million acres of National Forest land in central Idaho by closing the area to construction of public roads, buildings and other permanent improvements, and to occupancy under Special Use permit.

2. Purpose

The rapidly changing order of our national life has emphasized certain social needs which can be met in some degree at least by the national forests without undue interference with the primary purposes of timber production and streamflow protection. One of these needs is that of continued opportunity under primitive conditions to indulge in a wide variety of outdoor activities of an educational, inspirational, and recreational character.

The motives which impel people to seek seclusion and release from the strain and turmoil of modern existence, to revert to simple types of existence in conditions of relatively unmodified nature are too complex and elusive for systematic analysis. That such motives are inherent in most of us is evidenced by the large number of people who annually seek primitive conditions of environment for recreation and rest.

That the gratification of these human desires results in renewed health and other benefits of a high order cannot be questioned. It follows then that the government has a real responsibility in recognizing this public need and meeting it so far as this can be done without interference with the major purposes for which the forests were created. The Idaho Primitive Area offers exceptional opportunity for the exercise of this important function of the government to promote the health and contentment of the people. Nowhere else in the middle west is there an area of equal size more suitable for the perpetuation of these unique values representative of primitive conditions. In addition to the natural wildness of this picturesque country it is peculiarly suitable for a primitive area on account of the almost complete lack of any demand for any other uses and the very slight probability that there will ever be any conflicting demands.

The Idaho Primitive Area is therefore established:

To conserve primitive conditions of environment, habitation, subsistence and transportation for the enjoyment of those who cherish the early traditions and history of this country and desire to preserve in some degree, the traits, qualities and characteristics upon which this Nation was founded.

To make it possible for people to detach themselves, at least temporarily, from the strain and turmoil of modern existence, and to revert to simple types of existence in conditions of relatively unmodified nature.

To afford unique opportunities for physical, mental and spiritual recreation or regeneration.

3. Description of Area

(a) Location. The area, located in nearly the geographic center of the State of Idaho, consists of a fairly compact but slightly elongated unit of 1,087,744 acres. It is bounded on the north by the main Salmon River; on the east by the Big Horn Craigs, Yellowjacket Range, and Sleeping Deer Mountain; on the south by a line approximately four miles south of and paralleling the Middle Fork of Salmon River west to Rapid Creek; and on the west by the divide which forms the western limits of the watersheds of Marble, Monumental, Beaver, and Chamberlain Creeks. It consists of a vast timbered area with little commercial value but containing practically unlimited possibilities for uses of a recreational, inspirational, and educational sort.

(b) Acreage and Ownership.

National Forest land.....	1,078,770	acres
State land.....	4,570	"
Private land.....	4,395	"

X The only commercial activities on National Forest land at the present time are mining and a small amount of grazing. Some fifteen to twenty years ago, in response to a public demand which reached its height during that period, a considerable acreage of National Forest land in Chamberlain Basin and surrounding country was listed and opened to homestead settlement. However, after repeated attempts, extending over a period of some eighteen years or more, the production of agricultural crops and the raising of livestock in this region was given up as impracticable and most of the homesteads abandoned. A few areas have been patented and two are still carried on Forest Service records as entered claims. During the last few years all of the unentered lists, some sixteen in number, have been recalled.

X No use is being made of the State lands. They are not agricultural in character but some of them could possibly be used as grazing lands in connection with the patented lands. Their highest value is probably for watershed protection, recreational use and game management. Whether or not any portions of the State lands contain mineral deposits in material amount is not known at this time. Approximately half of the State land is within the State Game Preserve on Middle Fork.

The so-called agricultural lands in private ownership consist of small to medium-sized tracts scattered along the Middle Fork, Big Creek, Chamberlain Creek, Whimstick Creek, and Salmon River. The attached map shows the location of these patented homestead lands. A list giving the acreage and present state of occupancy is included in the appendix to this report. The grazing, agricultural, and mining activities on patented lands are discussed in more detail under Section 4 of the report.

(c) Accessibility. The area may be readily reached from several directions, depending upon the mode of travel and the season. The principal entrance routes and methods of transportation are given below:

Northern Entrance: The Salmon River on the north forms a deep, precipitous canyon which practically precludes all entrance from that direction excepting by boat from Salmon City or other up-river point. However, this entrance is readily accessible by boat and this method of transportation has been employed for many years by sportsmen, prospectors, and others desirous of entering that portion of the area adjacent to the Salmon River. Since the river route takes one through a region of rugged beauty abounding in big game, it carries a strong appeal to sportsmen and recreationists alike. This form of entrance is unique in that it is impossible to return against the current, thus making it necessary for the traveler to either proceed on down the river to Riggins or some other point accessible by road, or climb the steep slopes to the summit and return overland on foot or by pack string. This peculiarity of river transportation so appealed to Weidner when filming scenes along the river some years ago that he aptly named his picture "The River of No Return."

Outfitting for a trip by boat via the northern route should be done at Salmon City, a town of some 1,400 inhabitants where practically all kinds of equipment and supplies, including materials and labor for constructing boats, can be obtained. These boats, usually from six to eight feet wide and from twenty-four to thirty-two feet in length, are of the flat bottom type. They are solidly built to withstand the heavy buffetting against hidden rocks in midstream or along the banks of the river. They have no means of propulsion but drift with the current. They are equipped with two long sweeps, one at either end, each operated by a boatman, as a means of keeping the heavy craft in the proper channel away from rocks, bluffs and other obstructions. These boats will readily transport two or three tons of freight, or its equivalent in human weight, without danger of capsizing. The stream is safely navigable only during low water, experienced boatmen refusing to undertake the trip at other times. Attempts to run the river in small craft have usually met with disaster, frequently in the loss of life, and this method of negotiating the main Salmon River should not be undertaken.

For real red-blooded men who desire an experience out of the ordinary, an experience spiced with thrills and a sprinkling of danger, I know of nothing more enjoyable than a trip by boat down the "River Of No Return." The rugged beauty of the canyon, narrow and precipitous in general, but opening out in places to form timbered flats and bars suitable for camp sites, the almost constant roar of the river, the splashing spray, the tossing boat as one drifts along, furnish sport par excellence.

Western Entrances: This involves automobile transportation from outside points to McCall and then via Warren to the western terminal of the automobile road at Big Creek Headquarters, a distance of ninety miles. This puts one to within three miles of the western boundary of the Primitive Area. Here one can obtain pack and saddle animals for the inland trip. Since this route involves crossing Elk Summit at an elevation of 9,000 feet in a region of heavy snowfall, it is seldom open to travel before the middle of July. From Elk Summit one has an excellent view of a considerable portion of the Big Creek drainage and the country to the south.

Subsistence supplies, gas, oil, meals and lodging can be obtained at McCall, Burgdorf Hot Springs, and Warren. Camp and field equipment can be obtained at McCall, but only a limited supply at the other points mentioned.

Entrance from the west can also be made by automobile transportation to Yellow Pine, 60 miles from the railroad point at Cascade, and thence by pack string to Big Creek Headquarters or other points north and east. Saddle and pack stock, subsistence supplies, gas and oil can be obtained at Yellow Pine.

Southern Entrances: The main entrances from the Payette River Highway are from Pen Basin and Bear Valley. The nearest railroad point is Cascade. Thirty-seven miles of good mountain automobile road leads eastward from Cascade to Pen Basin. Saddle and pack stock can be ob-

tained in Pen Basin for the trip down Pistol Creek and the Middle Fork about forty miles to the point of entrance. From Bear Valley the trip over trails is a little farther and the trails not so good, but this entrance is used quite extensively by persons entering from Stanley Basin. There is a fair road into Bear Valley from both Lowman and Stanley Basin and both saddle and pack stock can be obtained in the valley.

Entrance also can be made from the south by leaving the Sawtooth Park Highway at Sunbeam Dam and following the Yankee Fork road to Royle's ranch where saddle and pack stock, guides, meals and lodging, etc., can be obtained; or, via the Beaver Creek road to Rapid River. There is no regular establishment at Rapid River but in the Fall outfitting camps are usually established and parties are taken into the Middle Fork country.

Eastern Entrance: From the Sawtooth Park Highway at Morgan Creek one can travel by automobile to Meyers Cove where saddle and pack stock, meals and lodging may be obtained. From Meyers Cove the Middle Fork is about fifteen miles down Camas Creek and from here one can go up or down the Middle Fork or cross and enter the Thunder Mountain country.

(d) Topography. The topography of the area is so varied it is difficult to describe in sufficient detail to give one unacquainted with the region anything like a clear picture of the country as it opens up to the traveler. Roughly speaking, the topography ranges from high rolling plateaus and undulating ridges as found in the Chamberlain Basin, Cold Meadows, and Thunder Mountain regions, to steep canyons and precipitous bluffs as one descends to the Salmon River and Middle Fork. Between the two extremes one finds the topography gradually changing step by step as one feature merges into another. In ascending many of the small streams and tributaries the country opens out in places forming grassy meadows, basins and timbered bars. As one approaches the heads of the streams it is not uncommon to find small mountain lakes in a picturesque setting with a background of timbered slopes and rocky bluffs.

Because of its rough topography the country originally was exceedingly difficult to penetrate. Some idea of its inaccessible character is explained in some detail in Colonel Brown's narrative covering the Sheepeater Campaign of 1879. The almost insurmountable obstacles of topography met by Colonel Brown at that time are characteristic of the entire region prior to the construction of horse trails. In recent years the Forest Service and miners have constructed a system of trails as shown elsewhere in this report, which makes it possible to explore these mountain fastnesses with saddle or pack outfits without suffering undue hardships and with reasonable celerity. For the most part these trails follow the most accessible routes along the stream

beds and ridges, thus leaving many thousands of acres still untouched by man-made improvements. Large areas along the banks of the Salmon River and Middle Fork are so precipitous and inaccessible as to even render foot travel precarious or impossible. In ascending from the river to the crest of the high plateaus and ridges it is frequently necessary to climb six or seven thousand feet in a distance of eight or ten miles.

Mt. McGuire, probably the highest point within the area, is located on the east side at the head of Roaring Creek. It has an elevation of over 10,000 feet. From the crest of this mountain one obtains an excellent view of the country to the south and east and across the Middle Fork canyon which is practically impassable below its confluence with Big Creek. Numerous other mountain peaks 9,000 feet and over in elevation furnish the mountain climber excellent views of the surrounding country. Many of these peaks can be reached by saddle horse to the very top. Cottonwood Butte, with an elevation of 9,400 feet, located in the northwest part of the area in the triangle formed by the Salmon River and Middle Fork, probably overlooks more of the region than any other single peak. It can readily be reached by saddle horse over a very good mountain trail.

(e) Climate. Naturally the climate is as varied as the topography. A few hours' travel during midsummer will find all degrees of temperature ranging from a maximum of 80 to 90 degrees on the river to 45 to 65 degrees on the mountains and high plateaus. This wide range of temperature should satisfactorily meet the desires of the most exacting camper.

Rainfall is usually heaviest during June and September. July and August are the dry months with practically no precipitation in a normal season. Snow storms invariably occur in the high country in September but are usually followed by comparatively clear weather in the first half of October. After the middle of October heavy snow storms are likely to occur which may close Elk Summit to automobile travel. Travelers going in via Elk Summit by automobile should move their cars out over the top any time after the middle of October that the weather looks unsettled. Saddle and pack stock can negotiate the summit considerably later.

The winter climate in the high country is severe and accompanied by heavy snowfall, frequently eight to ten feet in depth. At Big Creek Headquarters snow is seldom more than 26" in depth, although it may exceed this during winters of unusually heavy snowfall. Along the Salmon River and Middle Fork there is comparatively little snow. The winter in the low country is comparatively mild and pleasant and quite favorable to the prosecution of game studies work and related activities.

(f) Timber. Most of the area is well timbered with stands of Western yellow pine, Douglas fir, lodgepole pine, and other species. The lower portions of the area along the Middle Fork, Salmon River, and Big Creek are covered with mature stands of Western yellow pine up to elevations of about 6,000 feet. At higher elevations occur Douglas fir, some Engelmann spruce, dense stands of lodgepole pine, and considerable limber pine. Much of the country was burned off in former years and is now restocking to dense stands of young growth.

The area as a whole supports a comparatively large volume of timber but is too broken up to ever warrant the expense of railroad construction, and trucking over eighty to one hundred miles of heavy grades across three summits is out of the question. Driving the Middle Fork is also out of the question on account of the great distance to the nearest possible milling point and expensive river improvements. Driving the Salmon River is possible but would involve excessive river improvements. A railroad survey was made down the Salmon River in 1910, but so far as is known actual construction of a railroad has never been seriously considered. There is considerable merchantable Western yellow pine timber tributary to the river that would be practicable to log in the event a railroad is constructed or the river improved for driving at some future time. Since the possibility of marketing this timber is very remote, and in any event, would not materially affect the value of the area for recreational use, the problem can well be left for consideration at some future date. Tables giving the acreage of dominant timber types and volume by species are included in the appendix to this report.

(g) Forage. Species consist of those characteristic of central Idaho, and present information does not indicate anything especially unique about the plant cover. A list of plants is not felt essential to this report. They have very little economic importance. The only grazing is by a few cattle, discussed elsewhere.

(h) Lakes and Streams. The area contains approximately fifty small mountain lakes varying in size from ten to one hundred acres. For the most part these lakes are located at or near the heads of streams fed by the melting snows from the mountain peaks. The water in these lakes is invariably clear and cold at all seasons. Their shore lines are usually timbered but some are set in grassy meadows while still others are surrounded on two or three sides by rocky bluffs. In order to maintain these lakes in their original condition, no raising or lowering of their natural water levels will be allowed, except as noted under 8 (f).

Perhaps the most interesting lake in the whole region is Lake Roosevelt on Monumental Creek. The interesting thing about this lake is that it is not a natural lake at all but was formed by a landslide during the old Thunder Mountain boom days, which resulted in submerging the old town of Roosevelt. Roosevelt was a small mining town of a hundred or so inhabitants located on Monumental Creek just above Mule Creek. A bar paralleling Mule Creek and consisting principally of a formation of hardened volcanic mud became permeated with the water used in placer mining above and started a landslide. This slide started at a point about two miles up Mule Creek and moved slowly down to Monumental Creek, damming the valley to a depth of about twenty-eight feet overnight. The distance of two miles was traversed in the course of a few hours but at no point was the movement more rapid than a man can walk. The old log buildings which comprised the town of Roosevelt still stand, most of them more or less under water.

Hundreds of small streams head in the high country and fall rapidly in tortuous channels to the rivers below. The courses of some of the larger streams are marked by alternate stretches of rapids and comparatively smooth water. The large number of streams, lakes and springs furnish an abundant supply of clear, pure water well distributed over the entire area. There are very few places within the area where

it is necessary to go more than a few miles for water.

(i) Hot Springs. There are several hot springs within the area that not only give it added attraction but can be put to more beneficial use. At least four of these should be developed in a small way for the use of the public.

(j) Camp Sites. Along the larger streams at frequent intervals occur timbered bars or open flats that furnish ideal camp sites, while the surrounding slopes furnish an abundance of feed for stock. At the higher elevations are found numerous grassy meadows ranging in size from ten to eighty acres or more. Some of the best known and most used of these are Crescent Meadows, Cold Meadows, Hand Meadows, Moose Meadows, Chamberlain Meadows, and Meadow of Doubt. These meadows are bordered by timber and invariably have their springs or small streams running through. These sites furnish shaded camp grounds, abundance of fuel, clear cold water, and feed for saddle and pack stock, a combination which will strongly appeal to the outdoor man or woman.

None of these camp grounds have been improved nor are any permanent improvements needed. There are vast numbers of them not even touched by trails or any other evidence of human occupancy.

(k) Caves and Indian Paintings. There are a number of caves along Big Creek, Camas Creek, and Middle Fork that are interesting and intriguing to the traveler. These caves were used as shelter by the Sheepsteater Indians when they inhabited the region many years ago. The walls of most of these caves are covered with all sorts of Indian paintings, such as pictures of men, animals, tools, etc., and a lot of hieroglyphics that mean nothing to the average traveler but undoubtedly were clearly understood by the Indians. A group of these caves in the upper end of the box canyon on Big Creek are so located as to indicate they may have been used as a stronghold in years past.

(l) Historical. Perhaps the thing of outstanding historical interest is the Sheepsteater Campaign of 1879. The Sheepsteaters were a small band of renegade Bannocks, Shoshones, and Weisers, who derived their name from the fact that they subsisted largely on mountain sheep. They were strong, active, and capable of enduring great hardships, but they were not reservation Indians. Their existence had been known since the early 'sixties. After the Bannock War of 1878, the Sheepsteaters were joined by a few hostiles, who, eluding the U. S. Troops, sought refuge in that region of high timbered mountains along Big Creek and the Middle Fork. These Indians, after killing several miners and early settlers, were finally subdued after several skirmishes which took place in the region bordering Big Creek. The one soldier killed, Private Harry Egan, is buried on Soldier Bar and a monument erected over his grave.

One of the main camps of the Sheepsteaters was located on Big Creek flats just below and across from the Dave Lewis ranch. The only remaining evidences of this old Indian camp are a number of depressions in the ground over which the tepees were placed. These depressions

were dug by the Indians to serve as windbreaks during severe winter weather. The story is current among old timers in the region that the Indians before surrendering buried their guns somewhere on Papoose Creek. However, so far no one has been able to locate the cache.

Also of considerable historical interest is the Thunder Mountain boom which occurred some thirty years ago. The Thunder Mountain district lies in the upper drainage basin of Monumental Creek, a tributary of Big Creek. Placer gold was discovered in this region in 1899 by the Caswell Brothers. While placer mining they uncovered a gold-bearing lode which was reported to be fabulously rich and they sold out their holdings to the late Colonel W. H. Dewey of Nampa, Idaho. The news of this gold strike soon became public and resulted in a stampede which assumed the proportions of a miniature Klondike rush. People poured into the district over all the available trails. One of these trails, the "Three-Blaze Trail", was said to have been so prominently marked at that time to prevent the large number of "tenderfeet" that traveled in daily from getting lost. This trail is still a prominent route and extensively used by travelers. The "Three-blaze" consists of three separate blazes, one above the other about a foot apart.

During the Thunder Mountain boom the whole surrounding country was staked and old discovery cuts and blazes can still be found on mountains miles away from the Dewey mine. The town of Roosevelt was founded and named in honor of President Roosevelt who was in office at that time. The boom was short-lived as the rich surface ore gave way with depth to material too low grade to be profitably extracted in so remote a region.

Any description of this Primitive Area would be incomplete without some mention of "Uncle Dave Lewis" who owns a few acres of land on Big Creek at the mouth of Pioneer Creek. Uncle Dave is unquestionably the most interesting character in the whole region. It is said he took an active part in the Sheepeater Campaign, serving as a scout. However, he is better and more widely known for his prowess as a cougar hunter. It is pretty generally agreed by those who know him that Uncle Dave has killed over one thousand cougar in his day. Although he is nearly 90 years of age he is still active and lives alone on his ranch at the mouth of Pioneer Creek. Uncle Dave's dogs are famous for their intelligence and stick-to-it-iveness in tracking and treeing cougar.

(m) Geology. Since accurate information on the geology of the entire area is lacking, discussion under this head is limited to the region covered by Dr. J. B. Umpleby of the United States Geological Survey in 1913 and 1916. This includes the upper Big Creek drainage and some of the Middle Fork country, with particular reference to the Thunder Mountain District and Big Creek District. Dr. Umpleby says in part:

"Apart from recent alluvium and glacial wash the rocks of the region may be grouped in three main divisions.

(a) The oldest rocks, consisting of quartzites, slate, schists and a little altered limestone, are all presumed to be of the pre-Cambrian or Algonkian Age. One of the best exposures of this series of rocks is on Big Creek between the mouth of Monumental Creek and Edwardsburg where the trail traverses it for a distance of about eight miles.

(b) These ancient metamorphics have been extensively intruded and metamorphosed by the granite mass of Central Idaho and probably should be considered as a roof pendant of the great Idaho batholith that crops out over a continuous area of 24,000 square miles. The granite of this region, which is entirely similar to that in other parts of Idaho, is a light-colored biotite granite approaching a quartz monzonite in mineral composition. Locally, within it and within the roof pendant of sedimentary rocks, dikes of basic and intermediate composition are conspicuously developed.

(c) The third series of rocks occurring in the region comprises lava flows and tuffs probably of middle Tertiary Age. These consist of rhyolite, latite, and andesite, with occasional patches of basalt together with their pyroclastic equivalents. Some of the tuffs are water-laid, probably in lakes formed by damming up the streams; and most of the lavas clearly occupy old valleys which cut the area to depths greater than those occupied by the present streams. With the exception of alluvium and glacial deposits these are the youngest rocks in the region as they either intrude or overlie both the granite and the metamorphosed sediments.

Thunder Mountain District

Thunder Mountain is part of a ridge which forms the divide between Marble and Monumental Creeks, the elevation of the ridge being between 8,000 and 9,000 feet. The mines are located on both sides of this ridge, the Sunnyside mine being on the Marble Creek side and the Dewey mine on the drainage of Monumental Creek. The country rock consists of rhyolite and andesite in the form of flows and tuffs, mixed with hardened mud of probable volcanic origin. Gold occurs in some of these flows and in beds of tuff, following seams which are probably joint planes.

Big Creek District

The district is near the center of the main granite core of Central Idaho. Extending eastward from the North Fork of Payette River and from Little Salmon River is a belt of granite 50 miles in width which reaches with minor interruptions almost to Stanley Basin. In general this belt contains practically no other rocks and except for the gold veins of Warren and Marshall Lake contains little mineral. On Big Creek to the east for a width of 25 to 50 miles lies the belt of ancient metamorphics previously described, and between the two is a belt (about

five miles wide) of what are probably Tertiary eruptives consisting chiefly of rhyolite and striking almost due north and south. These have been intruded into the granite not far from the contact of that rock with the metamorphics.

The geology of the district is not quite so simple as outlined above, as the contact between the different rocks is indented and irregular and the later intrusives are not confined to rhyolite, but are made up of varied assortment such as quartz porphyry, granite porphyry, syenite porphyry, alaskite porphyry, and diorite."

(n) Natural Phenomena. The physical characteristics of the area as a whole are not more marvelous than can be found in many other parts of the Rocky Mountain region. Probably its strongest appeal is the immensity of the area and its isolation. This gives to those who enter it a feeling that they are actually getting away from modern conditions of environment and can revert to a simple type of existence without restraint or molestation.

An interesting and unique feature of the region is the monument from which Monumental Creek derived its name. This monument which is located on Monumental Creek about ten miles above Big Creek is approximately seventy feet high, six feet in diameter at the base, and has a large boulder suspended at the top. Its knob-like formation is due to the fact that excepting for the granite boulder suspended on top it is composed of erosive material which has worn down by the action of the weather until the upper part of the body of the monument is considerably smaller in diameter than the boulder on top.

Also of interest are the Big Horn Craggs, located on the eastern border of the area just north of the Yellowjacket Range of mountains. These craggs, with their bases already situated on a high divide, rise perpendicularly for hundreds of feet in the air. With their smooth, perpendicular sides they resemble huge monuments.

Off to the south and west lies Rainbow Mountain, so named because of its rainbow colored hues. It rises to an elevation of 9,329 feet and from its crest one can obtain an excellent view of the surrounding country.

4. Improvements

The only improvements on National Forest land consist of trails, telephone lines, shelters, etc. There are no roads. A few bridges across the Middle Fork, Big Creek, and possibly the main Salmon River will be necessary for fire protection and to enable recreationists to cross these streams at times when high water makes fording dangerous or impossible. A horse trail system will be developed and maintained and a few cabins for men on game patrol or predatory animal control work may be found necessary and allowed. No other improvements are contemplated by the Forest Service except such cabins, lookout structures, low standard motor ways, etc., as are deemed necessary to protect the area.

from fire. However, the construction of improvements needed by prospectors and miners in the development of mineral lands will in no way be interfered with. The construction of roads, trails, or other improvements will not be allowed to mar the landscape or interfere with its primitive characteristics. Neither will roads leading to the area terminate where too much congestion of people traveling to and from the area result. The State Highway Department had a survey by aerial photography made down the main Salmon River from Salmon City to Riggins in 1930, to determine the practicability and feasibility of a highway over that route. No interference with such a project is contemplated. Directional and object signs have been placed by the Forest Service on the important streams and most of the trails. This work will be continued until the region is adequately signed. Campgrounds will not be improved.

A list of all existing and proposed improvements on National Forest land is given in the appendix to this report.

5. Fire This area is probably as hazardous as any in central Idaho as much of the country is low, so the plant cover gets very dry. It is absolutely essential that an efficient fire protection organization be maintained.

6. Fish & Game

No thorough study or biological collections have been made within the area and the following information is very general in character, and includes only the more easily observed species.

Due to heavy trapping in former years, fur-bearing animals are not so plentiful as big game. The State Game Department is doing excellent work in protecting the big game in the region, with the result that an abundant supply of the more important species still exists.

There is at present a decided lack of accurate information covering the habits, habitat, losses, etc., for the different big game species. To obtain such information and formulate satisfactory game management plans will require that studies be carried on throughout the year by men under year-long appointment. Discussion here is based largely upon observations made by the Forest Service personnel during the summer season only, and information obtained by employees of the State Game Department and others who spend the winter in that region.

Following are the principal animals, bird and fish species occurring in the Middle Fork Primitive Area:

Elk. 475 elk range within the unit, according to estimates. They are not nearly so widely distributed as deer. The principal elk ranges are the Chamberlain Creek and Disappointment Creek watersheds. A few frequent the heads of Cave Creek, Papoose Creek, and other points, but the larger herds are found on the watersheds first mentioned. Because of the inaccessible character of their ranges and the time and expense involved going in and packing the game out, only a comparatively few of these animals have been killed during the past few years. Any estimate of losses through predatory animals or other causes is nothing more than a poor guess. However, these elk herds seem to be holding their own very well and undoubtedly the range reasonably can be expected to carry several times the present number. These elk herds are a big asset to the Primitive Area not only for hunting purposes but as an added wild life attraction. Herds of thirty or forty are frequently seen on Cold Meadows and Cottonwood Meadows.

Moose. Since moose are reported upon the Idaho Forest, they probably occur in small numbers within the northwestern section of the area. Much of the country is too rough for suitable range for this animal.

Bear. The black bear and its brown color phase are common here, a total of 700 being reported. Like deer they are pretty well distributed over the entire region. The number of bear actually seen from year to year varies so materially it would seem that this animal is much more migratory in nature than the other big game animals listed. At the same time it is not uncommon for a bear to occupy some particularly desirable location throughout the summer and fall. An occasional grizzly bear is killed within the area which is evidence enough that a few of these animals may still be found. However, they appear to be very wary and keep to the more inaccessible parts.

Mountain Goat. The estimate for mountain goats is 425 head. They range along the bluffs of all the larger streams, staying high up during the summer and fall and working down out of the deep snow in the winter.

Mountain Sheep. This species also inhabits the rough broken country but are more inclined to graze out on the more open grassy slopes than do mountain goats. It is estimated that there are 475 mountain sheep within the area.

They are pretty well scattered over the rough sections along the Middle Fork, its main branches, and the main Salmon River. A number of years ago they were reported seriously reduced by disease but at present seem to be about holding their own, although apparently subject to considerable losses from natural enemies.

Game Birds This is an interesting area to the bird student since there is

Deer. It is estimated that the area contains 13,000 deer. Most of these are Rocky Mountain mule deer, although a small number of White Tailed deer have crossed the Salmon River and entered the region from the north. It is uncertain whether these are the Western or the Oregon White Tail but they are exceedingly wild and during the summer months seek safety in the thickets and brushy gulches. They are difficult to hunt and are seldom killed except by expert shots. They have been seen only in the high country that breaks off toward the Salmon River. The region around Meadow of Doubt and Hot Springs Meadow seems to be their favorite range. Undoubtedly they will gradually spread to other parts of the area as they become more numerous. Just where and how they spend the winter no one seems to know. Probably they work down toward the Salmon River out of the snow.

Mule deer are well distributed during the summer months over the entire area. It is not uncommon to see does and fawns in considerable numbers down along the river bottoms even during the hot weather of July and August. The bucks, however, generally leave the low country as soon as snow conditions permit in the spring, and stay high until driven down by the snow in October or later. They keep pretty much to themselves until the rutting season in late October or early November. Mule deer winter along the lower slopes of the Salmon River, Middle Fork, and Big Creek. Considerable numbers winter on Big Creek as far up as the Conyer ranch. The total number of deer which can be maintained within the area is dependent upon the amount of winter range that can be made available.

There is no dependable information on losses of deer over the entire area. Unquestionably the heaviest loss is due to the work of predatory animals, most of which occurs during the winter months when accurate observations are lacking. A few cougar kills have been noted during the summer months but it is believed that the loss from coyotes during this period is practically nothing. In all probability considerable loss occurs in places in the spring which is indirectly attributable to starvation, ticks, disease, etc. The animals become weakened through these causes and fall an easy prey to predatory animals.

Just how many of the 13,000 deer estimated for the area are does and how many bucks or what the natural increase should be is of course problematical. Assuming that one-half are does and that a 50% fawn crop can be expected, the increase would amount to 3,250 deer. In his game study of 1929-30, Bolles estimates an 8.5% loss of deer from predatory animals and 1% loss from disease and other causes, or a total loss of 9.5%. Using this loss figure there would still remain approximately 3,000 deer available for annual removal without reduction of breeding stock. Since this is probably double the number of deer taken by hunters and since it is generally agreed that deer are not increasing materially, it may be reasonable to assume that the loss figure of 9.5% is much too low for the region as a whole. If this is the case it would seem that any desirable annual increase up to 3,000 head or more can be obtained by a proper degree of predatory animal control.

an overlapping here to some extent of central and northern Rocky Mountain birds with coast species. No attempt is made here to list the small birds, many of which are common and interesting to nature students.

Blue Grouse. Blue grouse are very plentiful in some of the more isolated regions. The Rush Creek country is particularly well stocked. The number occurring in any particular season seems to be largely governed by weather conditions the previous winter and spring. It is not known whether they are the dusky grouse or Richardson grouse, or whether both forms may occur.

Ruffed Grouse. Known locally as willow grouse or pheasants, these birds occur along stream courses, less abundant than the blue grouse. It is not known whether these are the Canadian or gray ruffed grouse.

Franklin Grouse. These interesting little birds occur in the more extensive lodgepole pine areas and are known as fool hens.

Other Grouse. So far as known, the sagehen and sharp-tail grouse do not occur within this area.

Migratory Birds. No attempt will be made to list these which occur chiefly as migrants except for mallard, teal and Merganser ducks. Geese occur as migrants.

Other Birds. Golden eagles are rather common residents and are believed to be destructive to young game animals as they have been observed worrying deer. Bald eagles and ospreys are not uncommon.

Predatory and Fur-Bearing Animals & Rodents

Timber Wolf. Considerable confusion exists in reports regarding wolves since the large mountain coyotes are often called brush wolves. If timber wolves occur here they are scattered individuals rather than in any numbers.

Coyote. Coyotes are the most common predatory animal and are so much a limiting factor in other forms of wild life that at least a moderate degree of control is desirable.

Fox. The red fox occurs rarely at the higher elevations and possibly the gray fox may be found in some of the lower, rough areas.

Lynx. These animals occur rarely in the higher timbered sections.

Bob Cat. These cats are not abundant but occur rather generally in the rougher sections.

Cougar. Cougars have long been rather abundant here and control methods have been necessary. Due to the ruggedness of the topography, ordinary control measures will do no more than keep them reasonably in check. There may be 100 cougar in the area.

Marten. This valuable fur-bearer is found rather widely distributed in the lodgepole pine forests but is nowhere abundant.

Mink. Mink are fairly common over much of the area.

Otter. These animals are more than usually common in this section and find an abundant food supply in the fish.

Badger. Badgers are less common here than in more open country, but occur over much of the area.

Wolverine. Although occurring formerly, it is probable that this animal does not at present exist here although occasionally one is reported.

Porcupine. The work of this animal is commonly seen in areas of lodgepole pine although they are not as abundant as in many other National Forest areas.

Beaver. Beaver are widely distributed but not abundant, and along the main rivers or large streams occur as bank beaver, not attempting to construct dams.

Fish

Few species of fish other than the Salmonidae are found in waters within the primitive area. Due to the lack of intensive fishing and amount of water not reached by fishermen, excellent fishing is usually obtained.

Blackspotted or Cutthroat Trout. This is the "redskins" of this section and is the most common trout in these waters, seldom exceeding two pounds in weight.

Steelhead Trout. There is a considerable run of these fish in winter and early spring, and specimens from 10 to 15 pounds in weight are often taken. There is a smaller form found in a few lakes and along the riffles in the main streams which apparently are identical in form with the sea run specimens but do not migrate.

Dolly Varden or Bull Trout. These fish are widely distributed and in early fall large specimens ascend the smaller streams to spawn.

Whitefish. Most of the streams contain a quota of these fish, known also as mountain herring.

Chinook Salmon. This is the only salmon occurring in these waters and in early fall are abundant in many of the streams to which they come from the Pacific Ocean to spawn, and all die shortly afterwards. The streams within this area, in many of which the salmon spawn entirely unmolested, are an important natural source of supply.

(c) Pack Trips. Many pack trips are made into the region during midsummer primarily for an outing. On these trips some fishing is done as a matter of course, but in many cases the primary purpose seems to be merely a desire to enjoy outdoor life under primitive conditions of environment. The Idaho Primitive Area offers excellent opportunities for trips of this sort, trips of such duration as to suit the convenience of the traveler. Trips of from one to thirty days with one-night stops and new ground each day can be taken. On the other hand, if one desires to spend a few days at some particularly pleasing place this can be done with the utmost comfort and satisfaction. The possibilities for making pack trips are almost unlimited.

(d) Foot Trips. This form of outdoor recreation is not so popular in the west as it is in eastern sections of the country. Westerners as a rule seem to have inherited a characteristic of the old-time cowboy in that they much prefer to ride even for comparatively short distances. However, exceptions to this rule are becoming more frequent and undoubtedly the time will come when foot trips over even comparatively long distances will come into more general use. Most dealers in sporting goods now carry complete light-weight outfits for the use of those who desire to penetrate areas accessible to foot travel only. Within the Idaho Primitive Area are hundreds of places which can be reached only by foot travel.

X (e) Boating and Canoeing. The possibilities of boating on the main Salmon River have already been discussed. The Middle Fork, also, has possibilities for a limited amount of boating and canoeing. However, it should only be undertaken by experienced boatmen and canoeists who are expert swimmers and accustomed to operating their craft in "white water." Although there are stretches of comparatively smooth water, these are invariably followed by swift and rocky rapids rendering any sort of navigation on this stream more or less dangerous. To undertake to run the Middle Fork below the mouth of Wilson Creek in any sort of craft of present design is suicidal.

8. Economic Uses.

(a) Agriculture. Although some of the patented agricultural lands along Middle Fork and Big Creek are well suited to the production of fruits and vegetables, the isolation of these lands and distance to market precludes development of these activities on a paying basis. Present agricultural use of these lands is limited to the production of small quantities of hay for stock and a few vegetables for home consumption. In a few instances small quantities of hay are sold to hunters and others who come in with pack outfits late in the season when stock are likely to drift if turned out on the range. The balance of the hay produced is fed to the few stock raised on the ranches that are still occupied.

7. Recreational Use

Unquestionably the area has been, and will continue to be, used by the public for many purposes other than strictly recreational. However, due to the complexity of these other uses no attempt is made to cover them in this report. The discussion here is confined to public uses concerning which we have considerable definite knowledge which seems to be primarily recreational in character.

(a) Hunting. The predominant use of the area up to the present time is probably for hunting, although fishing undoubtedly has a close second place. Some probably would reverse the order of these two uses. However, it would seem that most of the trips into the region are made primarily to hunt, with fishing as a sort of side line.

The hunting of big game such as deer, elk, bear, etc., can be carried on with great enjoyment and success within the Idaho Primitive Area. Except for approximately 250,000 acres within the Middle Fork State Game Preserve the entire area is open to hunting.

To get the most out of a hunting trip requires the use of saddle and pack stock and this should be arranged for beforehand. To insure reasonable success one should ordinarily plan on a trip of from one to three weeks, depending upon the species of game to be hunted. Ordinarily only a few days are required to secure a deer, but to reach the elk ranges, obtain an elk and return will require at least ten days and probably longer. Mountain goats and Mountain sheep are not difficult to obtain once they are located. However, it sometimes requires several days to locate their feeding grounds.

(b) Fishing. Practically all of the larger streams and several of the lakes are well stocked with fish. The best stream fishing, particularly if large fish are desired, is on the Middle Fork and Big Creek. The Middle Fork furnishes excellent fishing throughout its entire length within the area. A good trail follows the river down as far as the Mormon ranch, close enough to the river in many places for the traveler to see the trout and at certain seasons salmon in the crystal clear waters below. The upper portion of Big Creek which is accessible to automobile travel, is usually fished out early in the season but the lower portion furnishes excellent fishing until the fish go down in the fall. Most of the side streams contain plenty of fish but they are comparatively small.

Fish Lake, Flossie Lake, and Roosevelt Lake are well stocked with fish. Other lakes within the area are said to contain fish but we have no first-hand information regarding this.

(b) Grazing. Several years ago there was considerable demand for grazing permits on National Forest lands adjacent to the ranches but the production of livestock in this isolated region proved so unprofitable the demand for range has fallen off materially. A more direct comparison is made by stating that in 1920, 534 cattle and 43 horses were grazed under permit whereas in 1930 only 130 cattle and 45 horses were grazed. The principal reasons why stockraising has proved unprofitable are the long trail to market and the difficulty of producing enough hay on these ranches to winter the stock. From the Grandall ranch on the Middle Fork to shipping point requires nine days, and from the Conyer ranch on Big Creek to shipping point requires ten days, with rough, rocky ground to cover in either case. This is indicative of conditions elsewhere within the Primitive Area. The inevitable heavy shrinkage and poor condition of stock when reaching shipping point materially effects its market value.

Winter losses are also heavy at certain periods. The small amount of hay produced is insufficient to carry stock through a hard winter. An outstanding example of this occurred in either 1922 or 1923 on a Middle Fork ranch. At that time the owner of this ranch lost by starvation over 60% of his herd of approximately 200 head of cattle. For days the owner of this stock cut and carried willows to feed cattle so weakened they could not stand. Despite all his efforts he was practically ruined financially. To correct this condition in part, at least, in the future the Forest Service will require that each permittee produce on his ranch $3/4$ of a ton of hay per head of stock grazed under permit.

Horses are better foragers than cattle and can usually "get by" by seeking out the wind-blown ridges and other places where the snow depth is light. For this reason horses have been left largely to shift for themselves throughout the year and many are becoming wild. As a result a wild-horse problem is developing that will probably require serious consideration in the near future.

All grazing of either cattle or horses will be handled under Forest Service range management plans. No sheep grazing is contemplated.

(c) Mining. That some parts of the region are heavily mineralized is evidenced by reports of mining engineers who have made examinations of certain properties. The principal problem to be solved by mine owners seems to be cheaper methods of transportation. Considerable mining has already been done where the value in gold runs high. Further development of this activity is largely contingent upon better transportation facilities which may come about with the acquiring of these properties by men with sufficient capital to develop them in the proper way. No curtailment of this activity is contemplated. A list of patented mineral lands is included in the appendix. The kind of minerals found here can be obtained from the 1929 report of the State Inspector of Mines.

(d) Water Storage. The only withdrawal is that for power along the main Salmon River extending back about one-fourth mile from the river, and this does not effect the value of the area for recreational use. No other storage of water for either irrigation or power has been or is likely to be contemplated, nor will such be allowed. Any artificial lowering or raising of the lake levels which might injure the beauty of shore lines will be forbidden, except as noted under 8 (f).

(e) Timber. No commercial use of timber exists nor does there appear to be any likelihood of such use in the near future. Should there be any demand, conservative cutting will be allowed under Forest Service administration with due regard for protecting scenic, aesthetic, or recreational values.

(f) Tenure of Proposed Policy. Under prevailing economic and social conditions, the potential value of this area for inspirational and recreational purposes, is greater, more susceptible of early realization and more desirable than is the utilization of its material resources. These conditions seem likely to obtain for at least a generation, and in all probability considerably longer, except for mineral development, which is not to be curtailed.

However, if in the course of time, new conditions shall develop under which the controlled utilization of the natural resources of the area becomes economically practicable and socially desirable, the Forester will feel free to modify the plan of management and use, so that while public enjoyment of the unique scenic and recreational values may still continue, a proper, correlated utilization of the timber, forage and water resources (use of mineral is not to be curtailed) shall not necessarily be precluded or unduly restricted.

9. Administration.

(a) Personnel. Administration of the area will be handled jointly by the Supervisors of the Salmon, Challis, Payette, and Idaho Forests. In addition to the present organization, four year-long men may eventually be needed. In making these assignments it is important that men be selected who have shown a keen interest in wild life; who have the ability to conduct studies looking to an accurate determination of summer and winter range, losses, the feeding habits of game, etc.; who can formulate and apply adequate game management plans, and who are willing to spend the winters alone in a practically uninhabited wilderness region. Tentatively at least these men should be stationed one on Big Creek near the Dave Lewis ranch, one on Salmon River near the mouth of Disappointment Creek, one on the Middle Fork at or near the

Mormon ranch, and one at White Creek. Studies have already been carried on at the latter station, by winter assignments of members of the regular organization, but to secure accurate and far-reaching results within a reasonable period of time will require a special year-long assignment.

In addition to conducting year-long game studies these men will be subject to fire call and will materially strengthen the fire control organizations in a region where the fire hazard is exceptionally high. It will be their duty to mark the boundaries of the primitive area, particularly at all entrance points; to distribute salt for big game in accordance with an approved salting plan; to cooperate with the State Game Department in fish and game management; to investigate and report all insect infestations discovered by them within the area; to protect Indian writings, caves, campgrounds, and all resources from vandalism; and to perform such other work as may be assigned them.

(b) Insect Control. The damage by *dendroctonus monticolae* in lodgepole pine in much of the area has reached such a stage that control measures are probably impracticable if not impossible. Considerable damage by beetles in Douglas fir along Big Creek and Beaver Creek occurred a few years ago but this infestation seems to have died out. Beetle work in Douglas fir and Western yellow pine will be closely watched and action taken to control infestations that threaten to reach an epidemic stage.

(c) Predatory Animals. There is a decided lack of accurate information on the number of predatory animals that inhabit the area or to what extent they effect the production of game. Obviously the heaviest losses occur during the winter when climatic conditions favor the predators. Up to the present time winter observations have been so limited nothing definite has been learned upon which to base recommendations for future action. Therefore, the extent to which predatory animals should be controlled will have to be left to the determination of the men assigned to game studies work.

(d) Fire Control. There are stationed within the area during the fire season six primary lookouts and thirteen smokechasers and guards. This number of men, together with special assignments for game studies work is believed to be adequate for first-line defense. Developments proposed to secure a more adequate second-line defense have been discussed under Section 3- Improvements. Fire control will of course be given first consideration in the administration of the area.

(e) Airplane Landing Fields. A meadow comprised within the Chamberlain Basin administrative site has been used quite frequently as a landing field. Although undeveloped, this landing field has been used successfully by both large and small planes. Most of these planes have been brought in by non-resident hunters who desire to reach the elk ranges with maximum comfort and the least possible delay. There exists among sportsmen and others a strong feeling that the use of airplanes in hunting should be prohibited. It is felt that these objections are well founded and that the development of landing fields within the area should be prohibited excepting, perhaps, two or three that may be needed for emergency landings or in fire control work. If desired, landing fields can be developed at the entrances or other points outside the area. If auto travel is not to be condoned, surely entrance by air should also be discouraged.

(f) Private Lands. As has been shown under Section 7, private lands are at present being put to two forms of use, viz. mining and stock raising. With regard to the former it may be said that the country is heavily mineralized and that the development of these mineral deposits at some future time will probably be of considerable economic importance. No restrictions, therefore, will be placed upon mining activities or prospecting beyond those required by law which are applicable outside as well as within this area.

The situation with regard to stockraising is materially different. As has already been shown this activity is limited to a few scattered ranches where the production of livestock has proved unprofitable. These ranches are located in the heart of the big game winter range and considerable forage may be used that will be needed to augment the big game winter range if anything like maximum production of game is desired. Further, primitive conditions of environment cannot be maintained in their entirety in an area within which stockraising and ranching activities are carried on. Therefore, it seems desirable that action be taken by some agency responsible for furthering the big game interests to acquire these private lands for strictly game propagation and recreational use. Probably the best solution of the problem will be either for the State Game Department to buy up such of these lands as are at present used or likely to be used for stock ranches or "dude" ranches, or to secure State or Federal legislation authorizing their purchase and appropriating money therefor. In making this suggestion the purpose is not to "freeze out" owners of these small ranches but rather to obtain an objective, under which private interests will be compensated for their investment, and at the same time simplify management of the area for the primary purpose of recreational use. In the meantime no restrictions will be placed upon grazing that do not apply to other portions of the forests concerned.

A commensurability standard of three-fourths ton of hay per head of stock grazed under permit is believed reasonable.

(S) S. C. Scribner
Forest Supervisor.

Approved:

Mar. 17, 1931

(S) R. H. Rutledge
Regional Forester

Approved:

Mar. 17, 1931

(S) R. Y. Stuart
Forester.

APPENDIX

(Idaho Primitive Area)

Boundaries of Area

Beginning at a point where the Middle Fork of Salmon River empties into the main Salmon River and thence following down the latter stream to a point approximately one mile below the mouth of Five-mile Creek in unsurveyed Section 28, T. 24 N., R. 8 E., B. M.; thence in a southerly direction along the divide between Five-mile Creek and Three-mile Creek and the watershed of the South Fork of Salmon River to Chicken Peak; thence in a southerly direction to the head of the north fork of Smith Creek; thence down Smith Creek to Big Creek; thence following the divide between Big Creek and Little Marble Creek to Cougar Peak; thence in a southerly direction along the divide to Rainbow Peak and Pyramid Peak; thence south and easterly around the head of Monumental Creek; thence southeasterly following the divide between the watersheds of Indian Creek and Marble Creek to the Middle Fork; thence up the Middle Fork in a southwesterly direction to the mouth of Rapid River; thence up ridge in a northeasterly direction to Little Soldier Mountain; thence following watershed divide in a southeasterly direction to the head of Thomas Creek; thence in a northeasterly direction to the East Fork of Thomas Creek, crossing this stream at the main forks and continuing in the same direction to the head of Little Creek; thence northeasterly along ridge north of the West Fork of Little Loon Creek to Little Loon Creek, crossing this stream at approximately one-fourth mile above the forks; thence continuing in the same direction to the ridge which is the divide between Little Loon Creek and Cougar Creek; thence southeasterly along this divide to the head of the West Fork of Cougar Creek; thence northeasterly around the head of Cougar Creek to the head of Cold Springs Creek; thence down ridge between Cold Springs Creek and Bear Creek to Loon Creek; thence up ridge north of Yellow Cat Creek and continuing in a northeasterly direction to Sleeping Deer Mountain; thence around the head of Cache Creek to Woodtick Summit; thence following ridge west of Woodtick in a northerly direction to Camas Creek, intersecting this stream about one-half mile below Yellowjacket Creek; thence northerly following the main divide between the Middle Fork of the Salmon River watershed on the west and the Yellowjacket Creek, Big Creek, and main Salmon River watersheds on the east to the confluence of the Middle Fork and Salmon Rivers, the point of beginning.

Acreage by Types

Timber land	984,429
Barren land	37,570
Brush land	256
Grass land	65,489
Total acres	1,087,744

Volume of Timber in M. B. F.

Lodgepole pine	1,886,000
Douglas fir	1,092,000
Western yellow pine	950,000
White fir	376,000
Engelmann spruce	299,000
Alpine fir	200,000
Western larch	94,000
Total M. B. F.	4,897,000

Existing Improvements on National Forest Land

<u>Name of Improvement</u>	<u>Miles or Number</u>
Trails.....	938
Telephone lines.....	249
Bridges.....	6
Lookout structures.....	5
Smokechaser cabins.....	5
Other cabins and store houses.....	10
Fences.....	1.25

Proposed Improvements on National Forest Land

	<u>Miles</u>	<u>Number</u>	<u>Estimated Cost</u>
Trails (Betterment & Construction).....	186		\$11,450
Telephone Lines.....	21		1,890
Bridges.....		6	18,800
Lookout structures.....		3	2,700
Smokechaser cabins.....		3	750
Other cabins and store houses.....		6	2,600
Cabins for game management.....		3	4,000
Hot Springs development.....		4	400
			<u>\$42,590</u>

Patented Homestead Lands

<u>Name of Owner</u>	<u>Acreage</u>	<u>Occupied</u>
1. E. O. Eakin	27.83	No
2. R. A. Hilands	85.19	Yes
3. W. A. Stonebraker	408.63	Yes (Dude ranch)
4. Jesse Root	157.65	No
5. W. A. Estep	32.10	Yes (Dude ranch)
6. Joseph B. Elliot	160.00	No
7. Elizabeth Bellingham	160.00	No (May be leased)
8. Orlando Mabel	160.00	" " " "
9. Archie C. Bacon (Conyer ranch)	160.00	Yes (Leased by Wallace)
10. Arthur E. Carden	160.00	No
11. Dave Lewis	64.84	Yes
12. Roy A. Elliot	95.26	Yes (Dude ranch)
15. (William Mitchell)		
16. (Lovell & Warnock)	307.00	Yes
17. ()		No
18. ()		No
19. (Names not furnished)	438.32	No
20. ()		No
21. ()		No
22. Jones (Acreage included in above group)		Yes
23. (I. R. Wilson)		Leased by Crandall
24. (Crandall ranch)	632.34	Yes by Crandall
Total acreage	3,049.16	

Unperfected Agricultural Claims

13. E. E. Elliot	140.00	No
14. Guy Utley	40.47	No
Total acreage	180.47	

Grand total, acres.....3,229.63

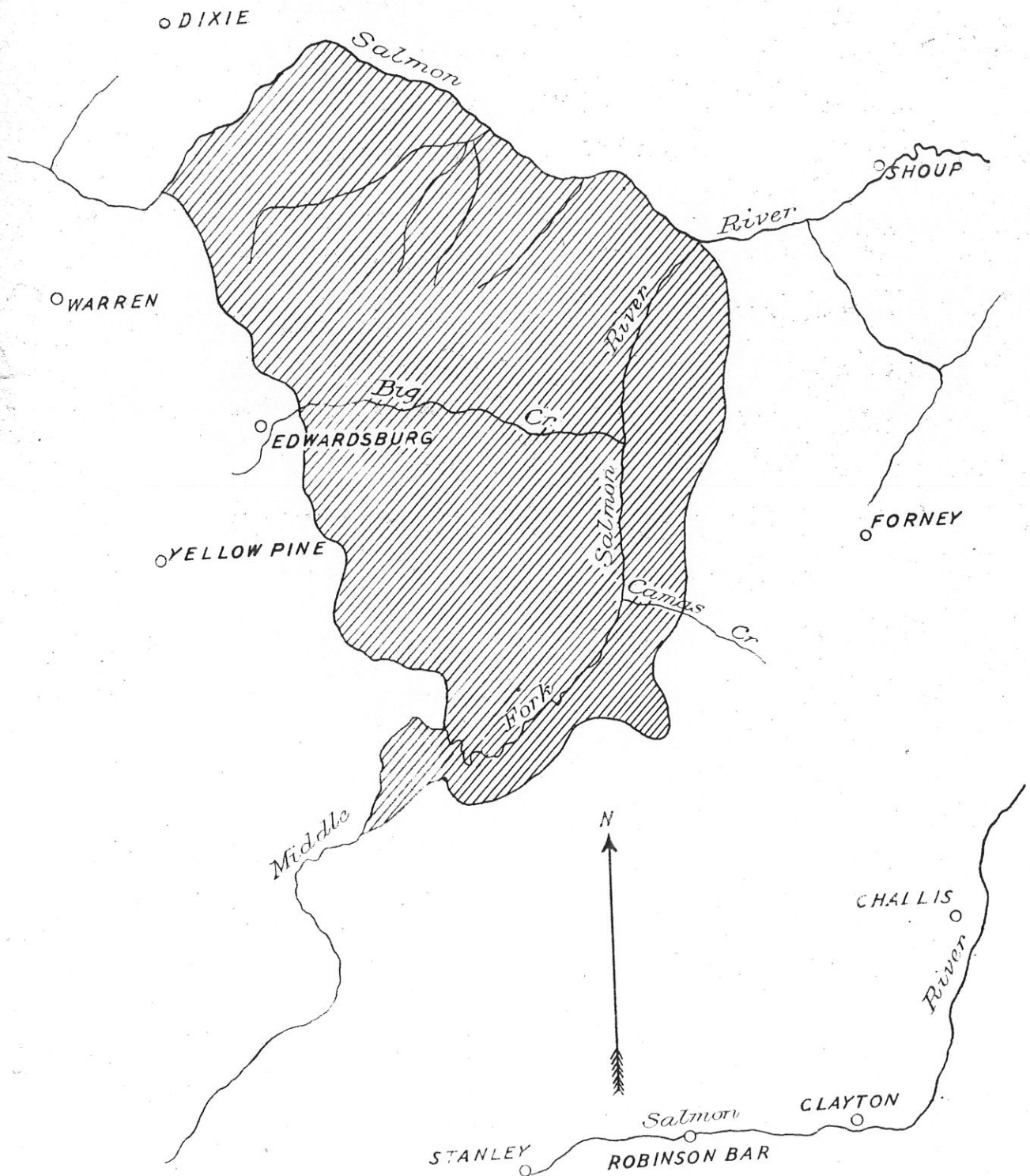
Patented Mineral Lands

<u>Name of Owner or Group.</u>	<u>Acreage</u>
1. Dewey group.....	164.65
2. F. W. Holcomb.....	249.94
3. G. M. Parsons (Blackbird Placer).....	57.68
4. Thunder Mountain Climax Group.....	24.64
5. " " Barlock Golden Giant.....	53.19
6. Hawkeye Group & Elk Group.....	43.13
7. Wanderer Group.....	76.41
8. Cheapman's Group and Pearl's Group.....	354.09
9. Buffalo Lode.....	20.66
10. Blackhorse and Shiner Lodes.....	27.28
11. Eagle Group.....	94.15
Total acreage.....	1,165.82

3,259.63
4,395.45

HOMESTEADS

IDAHO PRIMITIVE AREA



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Scale 1 inch = 10 miles